

MSPC Advisory Circular

ENVIRONMENTAL PROTECTION AGENCY OFFICE OF AIR PROGRAMS • MOBILE SOURCE POLLUTION CONTROL PROGRAM

A/C No. 7

March 27, 1972

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Certification Procedures for Heavy Duty Military Diesel Engines

A. Purpose

The purpose of this Advisory Circular is to provide for a special test procedure, to be prescribed at the request of the manufacturer, for certification of heavy duty military diesel engines.

B. Definition

A military engine is defined as any engine manufactured solely for the Department of Defense to meet military specifications. The military specifications under which these engines are designed and built place emphasis on extra power in emergency conditions whereas a similar commercial design will emphasize durability and less power.

C. Discussion

The unusually high fuel rate (emergency fuel rate) for heavy duty military diesel engines makes them not susceptible to satisfactory durability testing at the maximum rated horsepower and maximum rated torque as prescribed for heavy duty diesel engines in 40 CFR 85.127. The engine selection and test procedure set forth in this Advisory Circular for the 1972 and 1973 model years will be published in the Federal Register for 1974 and future applicability.

D. Interim Test Procedure

Under authority of Section 85.8 of the regulations, the following special test procedures will apply to heavy duty military diesel engines:

1) Durability data engines:

If military and commercial engines have the same engine-system combination (i.e. are in the same engine family) the commercial engine with the highest fuel rate and maximum rated horsepower will be tested for durability, on the premis that the amount of fuel used in the 1,000-hour durability test for normal (commercial) engines is essentially equivalent to the amount of fuel used in the military engine for its useful life.

If the military engine is in a unique engine system combination, the military engine will be durability tested using the maximum fuel rate of a similar commercial engine. This fuel rate must be approved in advance by the Division of Certification and Surveillance of the Mobile Source Pollution Control Program at Ann Arbor, Michigan.

2. Emission Data Engines

Whenever one or more military engines are included in an engine family that also includes commercial versions of such engines, a maximum of two such military engines will be required to be tested for emissions using the military maximum fuel rate, in addition to a maximum of two emission data commercial engines which may be selected for testing under the current regulations.

Applications should be addressed to the Division of Certification and Surveillance, Mobile Source Pollution Control Program, Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan 48103.

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